

Mail Stop 4561

July 26, 2006

Robert L. Howard-Anderson
President and Chief Executive Officer
Occam Networks, Inc.
77 Robin Hill road
Santa Barbara, CA 93117

**Re: Occam Networks, Inc.
Amendment No. 1 to Registration Statement on Form S-1
Filed June 29, 2006
File No. 333-134318
Form 10-K for the fiscal year ended December 31, 2005
Form 10-Q for the period ended March 26, 2006
File No. 0-30741**

Dear Mr. Howard-Anderson:

We have reviewed your responses and have the following comments.

1. Please refer to prior comment 1. Please tell us whether any of the selling shareholder entities are affiliates of a registered broker-dealer. If so, please disclose whether the sellers purchased the shares in the ordinary course of business and at the time of the purchase of the securities to be resold, the sellers had any agreements or understandings, directly or indirectly, with any person to distribute the securities.
2. Please refer to prior comment 2. The information provided regarding how the selling shareholders obtained their shares should include a materially complete description of the material terms of the transaction in which the shares were obtained. Although related information is included in the Part II recent sales section, the requested information should be included in the prospectus. Please provide here a discussion of the material terms of the Series A-2 Preferred Stock Purchase Agreement specified in note 2 to the selling shareholder table or include a cross-reference to a location in the prospectus where it is discussed.

Form 10-K for the fiscal year ended December 31, 2005

Form 10-Q for the period ended March 26, 2006

Disclosure Controls and Procedures.

3. Please refer to prior comment 3. Your disclosure indicates that the control deficiencies you identified include such things as “limitations in financial staffing, with related inadequacies in segregation of duties” and “processes for preparation and review of SEC filings, press releases and review of financial schedules.” You also state that management “believes it likely that one or more [of the deficiencies] could be deemed a material weakness.” In light of this disclosure, please tell us your analysis regarding how these deficiencies affect your disclosure controls and procedures. For example, how does the deficiency in processes for preparation and review of SEC filings impact your ability to record, process, summarize and report information required to be disclosed? To the extent that management believes any of the deficiencies identified may be material, as discussion of this matter in the period reports would suggest, and management nevertheless concludes that the company’s disclosure controls and procedures are effective, we would expect to see an explanation of how management arrived at the effectiveness conclusion.
4. Please refer to prior comment 6. We note your response and are currently unable to concur with your assertion that the Occam and its predecessor have consistently filed Exchange Act reports on a timely basis based on calculations using anything other than the company’s actual year-end or quarter-end date. In this regard, please provide us with support for your assertion that the financial reporting approach whereby a company, using 13- or 14-week accounting quarters such that the last Sunday of the calendar quarter falls on a Sunday, is “permitted to use the calendar quarter end date as the period end date on their financial statements and the cover of their Exchange Act filings....”
5. Consistent with your response to prior comment 6 and because you are required to file your periodic reports within the specified number of days “after the end of the fiscal year [or quarter in the case of quarterly reports],” please revise your statement in the Form 10-Q to indicate that, for the reasons given, a specified number of your prior Exchange Act filings were not timely filed. Disclose the number of times the company was late in filing its periodic reports.
6. We also note your assertion that no change or alteration in any procedures or processes the Company has implemented to provide for timely reporting would be required. It would appear that discovery of the failure to file timely since the year 2000 requires you to adjust your processes for computing the due dates of periodic reports and to file the reports according to a new schedule. Disclose the

basis on which you conclude that this is not a material change in procedures or processes that should be addressed in your disclosure under Item 308(c) of Regulation S-K.

7. Please explain how management is able to conclude that the company's disclosure controls and procedures, which include reporting within the time periods specified in the SEC rules and forms, are effective in light of the fact that you appear to have filed your periodic reports one to four days late since August 2000, except in two instances.
8. Finally, please include risk factor disclosure in the pending registration statement stating clearly that the company has consistently filed its Exchange Act reports late and discuss the potential impact of this on the company and its investors. To the extent you change the effectiveness conclusion regarding the company's disclosure controls and procedures in light of these comments, please include a discussion of the potential impact on the company and the resulting risks to its investors of your inability or unwillingness to determine whether the deficiencies in your disclosure controls and procedures that you discuss at length in your filings are significant deficiencies or material weaknesses.

As appropriate, please amend your filings in response to our comments. You may wish to provide us with marked copies of the amendments to expedite our review. Please furnish a cover letter with your amendments that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendments and responses to our comments.

Please direct all questions to Maryse Mills-Apenteng at 202-551-3457 or the undersigned, at 202-551-3462. If you still require further assistance, please contact Barbara C. Jacobs, Assistant Director, at 202-551-3730.

Sincerely,

Mark P. Shuman
Branch Chief – Legal

cc: Via facsimile: (650) 493-6811
Asaf H. Kharal, Esq.
Wilson Sonsini Goodrich and Rosati P.C.